

ABSTRACT

A hybrid vehicle system is provided with an internal combustion engine driving one set of wheels and an electric motor connected to the other wheels via an active clutch system. A power take-off unit is provided for selectively providing driving torque from the internal combustion engine to the electric motor to operate the motor in a regenerative operating mode. The active clutch system is selectively engaged and disengaged based upon whether the vehicle is operating in an internal combustion engine operating mode, an electric motor operating mode, a combined electric motor and internal combustion engine operating mode, or a regenerative operating mode.